

Analysis of Financial Performance Based on Environmental Performance and Leverage (in Manufacturing Companies Listed on The Indonesia Stock Exchange In 2010-2013)

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ABSTRACT

This study examines and analyses the role of Corporate Social Responsibility (CSR) as an intervening variable in mediating the effect of leverage and Environmental Performance on Financial Performance. In this study, 56 companies went public and comprised several industries listed in Indonesia Stock Exchange 2010-2013, using a purposive sampling technique. Testing is done using multiple regression analysis (multiple linear regression) with the application of SPSS version 20. The data analysis showed that the leverage and Corporate Social Responsibility (CSR) simultaneously significantly affect financial Performance. It partially influences and is especially effective on the environmental Performance of Corporate Social Responsibility (CSR), while Environmental Performance does not affect the financial Performance. Variable Corporate Social Responsibility (CSR) can become an intervening variable in mediating the effect of leverage on Financial Performance. However, Corporate Social Responsibility (CSR) could not become an intervening variable in mediating the impact of Environmental Performance on Financial Performance.

Keywords: *Environmental Performance, Leverage, Corporate Social Responsibility, Financial Performance*

Introduction

So far, the company is considered an institution that can benefit the community. According to the traditional accounting theory approach, the company must maximize its profits to make the maximum contribution to the community. However, over time, people are increasingly aware of the social impacts caused by companies in carrying out their operations to achieve maximum profit, which is getting bigger and harder to control. Therefore, the community also demands that companies always pay attention to the social impacts they cause and try to overcome them.

Financial Performance can be used as a benchmark in assessing the company's success from the financial side. When economic conditions are in poor condition, stakeholders will use financial statement analysis to assess past and future Performance. If the company's financial Performance is good, it will attract investors to increase its income.

Business activities, especially those carried out by companies directly or indirectly, certainly impact the surrounding environment, such as pollution problems, product safety waste, and labour. The impact on the environment affects people's awareness of the importance of carrying out their corporate social responsibility. Currently, all

companies in various business sectors in Indonesia mostly claim that their companies have carried out their social obligations towards the environment around the company. Therefore, most companies disclose Corporate Social Responsibility as motivation to increase public confidence in business achievements.

An empirical study on manufacturing companies for the period 2010-2011 found a gap phenomenon, where changes in the value of environmental Performance and leverage on financial Performance (ROA) did not correspond to the concept that explains the pattern of movement of these variables. It is known the average value of environmental Performance, leverage, and financial performance as in table 1 of table 1:

Table 1 leverage and Financial Performance

Year	Independent Variables		Dependent Variables
	TOS (%)	DER (%)	ROA (%)
2010	3,35	1,14	11,15
2011	3,35	1,10	14,67
2012	3,24	1,19	12,01
2013	3,35	0,93	8,21

Source: Secondary Data processed

The concept is that when the value of environmental performance variables increases, it should also increase financial performance variables. However, in certain years, as the value of ecological performance variables increases, financial performance variables decrease and vice versa. The concept is that when the value of the leverage variable decreases, the financial performance variable should also decrease. In fact, in the observation period, the value of the leverage variable tends to fall, but the economic Performance fluctuates. The distinction between this concept and fact is the gap phenomenon.

Literature studies on the effect of environmental Performance, and leverage on financial Performance, found research gaps. Research gap in ecological Performance to financial Performance; [1] found that environmental Performance significantly positively affected financial Performance (2) Rajput's research (2013) found that ecological Performance did not affect financial Performance. Research gap Leverage to financial Performance; (1) research by [2] found leverage had a significant effect on financial performance (2) research by [3] found leverage did not affect financial Performance.

Financial Performance is an analysis carried out to see how much a company has implemented the rules of financial implementation properly and correctly [4]. The formula for measuring financial Performance is as follows [5].

$$ROA = \text{Net profit} / \text{total assets} \dots \dots \dots (1)$$

The corporate environment is the company's Performance in creating a good atmosphere [6]. Environmental Performance is measured by the company's achievements following the Company's Performance Rating Assessment Program in Environmental Management (PROPER). The PROPER performance rating system includes company ratings in 5 colours, namely:

1. Gold : very excellent score = 5
2. Green : excellent score = 4
3. Blue : good score = 3
4. Red : bad score = 2
5. Hiam : Very Bad Score = 1

With this PROPER, it is hoped that the company will care about the surrounding environment where it is established. If a company participating in PROPER gets a good rating, the sustainability of the company will also improve the company's financial Performance. Hypothesis 1: environmental Performance affects financial Performance [1].

The leverage Ratio is used to measure the extent to which a company's assets are financed with

Debt. This means how much debt burden the company bears compared to its assets. In a broad sense, the leverage ratio, or the solvency ratio, measures the company's ability to pay all its short-term and long-term obligations if it is dissolved (liquidated). In this study, the indicator used was the Debt to equity ratio (DER). Debt to equity ratio (DER) is a ratio that measures total liabilities to own capital (shareholders equity). The measurement uses the formula:

$$DER = \text{Total Liabilities} / \text{Equity} \dots \dots \dots (2)$$

The company's value increases because the interest payment on Debt is a tax deduction. Therefore the operating profit flowing to investors becomes even greater. Bambang Riyanto (2008) states that the higher the DER will affect the amount of ROA the company achieves. Hypothesis 2: Leverage affects financial Performance [2].

Corporate Social Responsibility (CSR) is communicating the social and environmental impact of a company's economic activities to shareholders, creditors, employees, and society. The company's responsibility is not only limited to the company's financial Performance but must also be responsible for social and environmental problems caused by the company's operational activities [3]. The formulations used in CSR are:

$$CSR I_j = \sum X_{ij} / n$$

Information:

CSR D_j = Corporate Social Responsibility Index Company j

N_j = Number of items for company j, n_j = 78

X_{ij} = dummy variable, 1 = if the item i is disclosed; 0 = if the thing i is not told. Thus,

$$0 < CSR D_j < 1$$

The behaviour of these environmental performance variables aligns with predictions according to the theory. These results illustrate that companies with good environmental Performance will tend to disclose their Performance, believing it to be good news for market participants [7]. Hypothesis 3 environmental performance affects CSR [8].

According to [9], the decision to disclose social information will follow an expenditure on disclosure that lowers income according to agency theory, so the management of a company with a high level of leverage will reduce the exposure of social responsibility it makes so as not to be in the spotlight of debtholders. The hypothesis of 4 influence positively affects CSR [10].

From an economic perspective, the company will disclose the information if the information will increase the value of the company. By implementing CSR, it is hoped that the company will gain social legitimacy and maximize its financial

strength in the long run. The annual report is a media company used to communicate directly with investors. The disclosure of CSR information is expected to provide additional information to investors other than those already covered by accounting profits and improve financial Performance. Hypothesis 5 CSR affects financial Performance [8].

Research Methodology

This explanatory research aims to test a theory or hypothesis to strengthen or even reject the theory or idea of existing research results. The study population is a company listed on the Indonesia Stock Exchange. The research sample was 56 companies determined using purposive sampling techniques[4][11]. Source of research data from PT. Indonesia Stock Exchange and data collection techniques, namely documentation. The data were analyzed using the SPSS Version 2 0 tools with multiple linear regression analysis techniques[12][13].

Results and Discussions

Table 2 Results of Multiple Linear Regression Calculations of Corporate Social Responsibility (Y1)

Type	Coefficients			Sig.
	Unstandardize		Standardized	
	d Coefficients	Coefficients		
B	Std. Error	Beta		
(Constant)	,079	,048		,011
Leverage (DER)	-,042	,020	-,249	,042
1 Environmental Performance	,055	,015	,439	,001

a. Dependent Variable: *Corporate Social Responsibility (CSR)*
 Source: Secondary data processed

Based on the study's results, it is known that environmental Performance has a significant positive effect on Corporate Social Responsibility. This means that the PROPER program carried out by the Ministry of Environment encourages companies to pay attention to the environment. Companies participating in PROPER alone have received positive values from stakeholders even though the rating is not Gold. This environmental performance assessment can show which companies have cared or cared about the environment[14][15].

Companies that have followed PROPER will be more intense in conducting and reporting their social responsibility because the company reporting its social responsibility in the annual report

can attract investors and increase corporate accountability. When the company has carried out what is a requirement of the PROPER assessment process, one of which is Gold, where a company has consistently shown environmental excellence in the production process or *suited*, carrying out an ethical and responsible business towards the community, it will further grow the awareness of shareholders to increase social responsibility both in the internal and external scope of the company[16]–[19].

Based on the study's results, it is known that leverage has a significant negative effect on Corporate Social Responsibility, meaning that the greater the DER, the lower the CSR disclosure carried out by the company. Financial leverage refers to the amount of debt funding (which provides a fixed return) in the company's capital structure. Regarding CSR, a company's capital structure can affect the expenditure on CSR costs. The results of this study can inform the company's parties that the company is required to manage leverage properly to balance high returns with the level of risk faced. It is also necessary to understand that the size of this ratio depends on the loans owned by the company and the assets it owns. So companies that have lower Debt tend to make environmental disclosures. As a company with lower leverage will receive lower pressure from investors when the company's Debt increases or is high, the CSR burden will increase and will reduce the profit or profit of a company[20]–[22].

Table 3 Results of Multiple Linear Regression Calculations of Financial Performance Variables(Y2).

Type	Coefficients			Sig.
	Unstandardized		Standardized	
	Coefficients	Coefficients		
B	Std. Error	Beta		
(Constant)	12.691	3.971		,002
Leverage (DER)	-11.185	1.662	-,604	,000
1 Environmental Performance	-2.133	1.338	-,154	,117
.CSR	44.227	10.989	,399	,000

a. Dependent Variable: Financial Performance
 Source: Secondary data processed

Based on the study's results, it is known that environmental Performance does not affect financial Performance. This means that information issued by the ministry of environment regarding ecological implementation cannot affect economic Performance. Even if the average company gets a

blue rating or has made the required environmental management efforts as stipulated in the legislation – the law does not guarantee the company's financial Performance will improve. One of the reasons why the ecological version does not affect financial Performance is the lack of awareness of a company about the effects caused by poor environmental performance management, for example, the lack of compliance with water pollution control regulations, air pollution control, B3 waste management, AMDAL, and marine pollution control.

The above causes people not to want to be consumers of products produced by companies around the environment they live in because the community has already given a negative image, resulting in a decrease in product purchases and low financial cash entering the company. So it is appropriate that companies that do not carry out their environmental Performance properly will experience a decrease in economic Performance. The results of this study are supported by the research results of [8],[7].

Based on the study's results, it is known that financial leverage has a significant negative effect on financial Performance. This means that an increase in Debt will reduce the company's profits. This states that the company has carried out trading on equity, using funds accompanied by fixed expenses where funds can generate higher income than its fixed expenses [21]. This means that the company's management, when it has high Debt, will reduce its profit when it has to pay its debts, reducing its income or profit. The company also does not show good Performance because, with the increase in Debt, the company's profit will decrease. The results of this study are supported by the research results of [5].

Based on the study's results, it is known that CSR has a significant positive effect on financial Performance. High CSR will improve financial Performance because the company can meet the expectations of its employees, society, and shareholders. For example, companies participate in environmental improvement, scholarship programs, and others. With the company doing this, the company's image will be good in the eyes of the public. The public will respond by buying products from the company, improving the company's financial Performance through sales. With the increase in sales, financial Performance will be good, attracting investors to invest. This result is supported by the research results of [8]and [9].

Conclusion

This research has successfully answered the research problem; How to improve financial Performance based on environmental Performance and leverage, namely: (1) Increase the company's power. (2) Using information reflected by

environmental performance values that the company has good prospects in the future (3) Using information from CSR that proves that the company can balance the wishes of stakeholders and shareholders by maintaining environmental security not only in terms of producing goods (4) Musing Leverage, environmental Performance and CSR as an assessment tool before the company's management determines decisions in the company's financial policy and uses these ratios as a stimulus in the capital market and makes a strategic tool to improve financial Performance.

Based on the study's results, four proven hypotheses and one unproven hypothesis are known. The hypothesis with the most influence is hypothesis 5 (44.227%), and hypothesis 3 (-.042%) is the hypothesis with the least impact. Research limitations: This study cannot prove that environmental performance variables affect financial Performance. The selected intervening variable cannot mediate the influence of leverage and CSR variables on improving financial Performance. Upcoming research agenda: suggest future research conduct research to re-examine the effect of environmental Performance on corporate social responsibility by adding intervening variables. The study recommends using environmental performance variables and leverage as independent variables to use other intervening variables to mediate the influence on financial Performance. For example, the variable of the percentage of ownership of the institution. It is recommended that future research use other research objects such as JII (Jakarta Islamic Index), Kompas 100 Index, and LQ45.

Reference

- [1] A. Fitriani, "Pengaruh kinerja lingkungan dan biaya lingkungan terhadap kinerja keuangan pada BUMN," *J. Ilmu Manaj.*, vol. 1, no. 1, pp. 137–148, 2013.
- [2] S. S. F. U. Rehman, "Relationship between financial leverage and financial performance: Empirical evidence of listed sugar companies of Pakistan," *Glob. J. Manag. Bus. Res.*, vol. 13, no. C8, pp. 33–40, 2013.
- [3] R. Perinpanathan, "Impact of financial leverage on financial performance special reference to John Keels Holdings PLC Sri Lanka," *Sci. Res. J.*, vol. 2, 2014.
- [4] B. A. Cahya and A. MUID, "Analisis pengaruh kinerja keuangan terhadap tanggung jawab sosial perusahaan (Corporate Social Responsibility)(studi pada bank di indonesia periode tahun 2007-2008)." UNDIP: Fakultas Ekonomika dan Bisnis, 2010.

- [5] P. Mardindari and S. Rustiyaningsih, "Tanggung Jawab Sosial dan Kinerja Keuangan pada Perusahaan Manufaktur Go Publik di Bursa Efek Indonesia," *JRMA (Jurnal Ris. Manaj. dan Akuntansi)*, vol. 1, no. 1, pp. 70–80, 2013.
- [6] S. Tjahjono and M. Eko, "Pengaruh kinerja lingkungan terhadap nilai perusahaan dan kinerja keuangan," *J. Ekon. Univ. Esa Unggul*, vol. 4, no. 1, p. 17905, 2013.
- [7] A. N. Rakhimah and D. Agustia, "Pengaruh kinerja lingkungan terhadap corporate social responsibility (CSR) disclosure dan kinerja finansial perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia," *Simp. Nas. Akunt. XII*, pp. 4–6, 2009.
- [8] A. Pustikaningsih, "Analisis Hubungan Corporate Social Responsibility (CSR) Terhadap Kinerja Keuangan Pada Perusahaan Jasa (Studi Kasus Perusahaan Jasa di DI Yogyakarta)," *J. Pendidik. Akunt. Indones.*, vol. 9, no. 2, 2011.
- [9] J. Purnasiwi and S. SUDARNO, "Analisis pengaruh Size, Profitabilitas dan Leverage terhadap pengungkapan CSR pada perusahaan yang terdaftar di Bursa Efek Indonesia." UNDIP: Fakultas Ekonomika dan Bisnis, 2011.
- [10] V. A. Permana and R. Rahardja, "Pengaruh Kinerja Lingkungan Dan Karakteristik Perusahaan Terhadap Corporate Social Responsibility (CSR) Disclosure (Studi Empiris Pada Perusahaan Manufaktur Yang Terdaftar Di BEI)," *Diponegoro J. Account.*, vol. 1, no. 1, pp. 525–536, 2012.
- [11] Y. Liu, "The impact of corporate environmental responsibility on financial performance—based on Chinese listed companies," *Environ. Sci. Pollut. Res.*, vol. 28, no. 7, pp. 7840–7853, 2021, doi: 10.1007/s11356-020-11069-4.
- [12] G. Badía, "Financial performance of government bond portfolios based on environmental, social and governance criteria," *Sustain.*, vol. 11, no. 9, 2019, doi: 10.3390/su11092514.
- [13] X. Deng, "Promoting or inhibiting? The impact of environmental regulation on corporate financial Performance—An empirical analysis based on China," *Int. J. Environ. Res. Public Health*, vol. 17, no. 11, 2020, doi: 10.3390/ijerph17113828.
- [14] D. Xia, "The synergetic impact of environmental and innovation information disclosure on corporate financial performance: An empirical study based on China coal listed companies," *Technovation*, vol. 100, 2021, doi: 10.1016/j.technovation.2020.102179.
- [15] Y. Nakao, "Corporate environmental and financial performances and the effects of information-based instruments of environmental policy in Japan," *Int. J. Environ. Sustain. Dev.*, vol. 6, no. 1, pp. 95–112, 2007, doi: 10.1504/IJESD.2007.012739.
- [16] P. Kumar, "Does Accounting-based Financial Performance Value Environmental, Social and Governance (ESG) Disclosures? A detailed note on a corporate sustainability perspective," *Australas. Accounting, Bus. Financ. J.*, vol. 16, no. 1, pp. 41–72, 2022, doi: 10.14453/aabfj.v16i1.4.
- [17] R. M. Adeel-Farooq, "Does financial development influence the overall natural environment? An environmental performance index (EPI) based insight from the ASEAN countries," *Environ. Dev. Sustain.*, 2022, doi: 10.1007/s10668-022-02258-x.
- [18] Nursaid, "Efforts to improve the financial performance of manufacturing companies based on environmental performance, corporate social responsibility and intellectual capital," *Int. J. Eng. Res. Technol.*, vol. 13, no. 11, pp. 3278–3286, 2020, doi: 10.37624/ijert/13.11.2020.3278-3286.
- [19] X. Shi, "Analysis of Eco-efficiency Based on Interactive Evaluation System of Environmental and Financial Performance," *IOP Conference Series: Earth and Environmental Science*, vol. 170, no. 3, 2018. doi: 10.1088/1755-1315/170/3/032112.
- [20] Z. Liu, "Research on the Correlation between Environmental Performance and Financial Performance in China's Heavy Pollution Industries Based on RAGA-PP Model," *Polish J. Environ. Stud.*, vol. 31, no. 4, pp. 3195–3205, 2022, doi: 10.15244/pjoes/146558.
- [21] J. S. Yeomans, "An internet-based decision support system for evaluating the combined financial and environmental performance of companies," *4th International Conference on Environmental Informatics, ISEIS 2005*, pp. 52–57, 2005. [Online]. Available: https://api.elsevier.com/content/abstract/scopus_id/84926472451